

WHAT IS CLAIMED IS:

- 1 1. An electronic connector connected to a sensor or a switch, and  
2 communicating a signal through a common bus, comprising:
  - 3 an I/O unit, receiving a signal from the sensor or the switch;
  - 4 a control unit, generating a control signal for controlling the driving of a
  - 5 load corresponding to the sensor or the switch according to the signal received
  - 6 from the I/O unit; and
  - 7 a communication unit, having a function of decoding the control signal,
  - 8 and transmitting the control signal to an equipment connected to the
  - 9 corresponding load through the common bus.
- 1 2. The electronic connector as set forth in claim 1, wherein the equipment  
2 is at least one of the electronic connector, an electronic control unit and an  
3 auxiliary equipment module having a function of generating the control signal.
- 1 3. The electronic connector as set forth in claim 1, wherein the common  
2 bus is a dedicated communication line.
- 1 4. The electronic connector as set forth in claim 1, wherein the common  
2 bus is a power supply line; and  
3 wherein the control signal is transmitted while being superposed on the  
4 power supply line.
- 1 5. An electronic connector connected to a load, and communicating a

2 signal through a common bus, comprising:  
3           a communication unit, receiving a control signal for controlling the  
4 driving of the load through the common bus;  
5           a control unit, decoding the control signal, and generating a drive signal  
6 for driving the load; and  
7           a load driving unit, driving the load according to the drive signal.

1 6.       The electronic connector as set forth in claim 5, wherein the load is at  
2 least one electronic component out of a plurality of electronic components  
3 contained in an auxiliary equipment module.

1 7.       The electronic connector as set forth in claim 6, further comprising an  
2 I/O unit which receives a signal from at least one sensor or at least one switch  
3 out of the plurality of electronic components,  
4           wherein the control unit generates the drive signal for driving the load  
5 according to the signal received from the I/O unit.

1 8.       The electronic connector as set forth in claim 7, wherein the control unit  
2 generates a control signal for controlling the driving of a load corresponding to  
3 the sensor or the switch according to the signal received from the I/O unit;  
4           wherein the communication unit has a function of decoding the control  
5 signal; and  
6           wherein the communication unit transmits the control signal to an  
7 equipment connected to the corresponding load through the common bus.

1   9.       The electronic connector as set forth in claim 5, wherein the equipment  
2   is at least one of the electronic connector, an electronic control unit and an  
3   auxiliary equipment module having a function of generating the control signal.

1   10.      The electronic connector as set forth in claim 5, wherein the common  
2   bus is a dedicated communication line.

1   11.      The electronic connector as set forth in claim 5, wherein the common  
2   bus is a power supply line; and  
3        wherein the control signal is transmitted while being superposed on the  
4   power supply line.

1   12.      An auxiliary equipment module having a plurality of electronic  
2   components, and communicating a signal through a common bus, comprising:  
3        a communication unit, receiving a control signal for controlling the  
4   driving of at least one load out of the plurality of electronic components;  
5        a control unit, decoding the control signal, and generating a drive signal  
6   for driving the load; and  
7        a load driving unit, driving the load according to the drive signal.

1   13.      The auxiliary equipment module as set forth in claim 12, further  
2   comprising an I/O unit, receiving a signal from at least one sensor or at least one  
3   switch out of the plurality of electronic components,  
4        wherein the control unit generates the drive signal for driving the load  
5   according to the signal received from the I/O unit.

1    14.       The auxiliary equipment module as set forth in claim 13, wherein the  
2       control unit generates a control signal for controlling the driving of a load  
3       corresponding to the sensor or the switch according to the signal received from  
4       the I/O unit;

5                wherein the communication unit has a function of decoding the control  
6       signal; and

7                wherein the communication unit transmits the control signal to the  
8       equipment connected to the corresponding load through the common bus.

1    15.       The auxiliary equipment module as set forth in claim 11, wherein the  
2       equipment is at least one of the electronic connector, an electronic control unit  
3       and an auxiliary equipment module having the function of generating the control  
4       signal.

1    16.       The auxiliary equipment module as set forth in claim 12, wherein the  
2       common bus is a dedicated communication line.

1    17.       The auxiliary equipment module as set forth in claim 12, wherein the  
2       common bus is a power supply line; and  
3                wherein the control signal is transmitted while being superposed on the  
4       power supply line.